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## (54) ETCHING METHOD

(57) Abstract:

PURPOSE: To improve the accuracy of etching for fine working by using the mixed gas of an isotropic etching gas being represented by SF6 and having large reactivity and an anisotropic etching gas containing heavy ions easy to be dissociated to a symmetrical shape.

CONSTITUTION: A mixed gas mainly comprising at least one kind of a gas selected from a group composed of SF6, CF4, NF3, XeF2 and F2 as an isotropic etching gas and at least one kind of a gas (where X represents at least one kind selected from a group consisting of Cl, Br, I and H) selected from a group made up of (CXF2)2, (CX2F)2 and (CX3)2 is employed, and plasma etching is conducted. Accordingly, since etching can be performed by extremely low high frequency power, a resist can be used as an etching mask, and a vertical etching hole 3 can be formed when an Si substrate 1 is etched, employing the resist 2 as the mask.

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